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HINDA 2023.2  
(2003-052(PCT/US)  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Daniel M. Gíaquinta et al.  
International Application No. PCT/US2004/026847  
Serial No. 10/568,516  
Confirmation No. 1180  
Filed February 15, 2006  
International Filing Date June 18, 2004  
Priority Date Claimed June 18, 2003  
For PLATINUM-COPPER FUEL CELL CATALYST

July 24, 2006

TO THE COMMISSIONER FOR PATENTS,  
SIR:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with 37 C.F.R. 1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56, applicants submit the attached PTO/SB/08A for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record therein.

Applicants submit herewith copies of the foreign patent documents and/or literature references. Some of the attached Japanese references include English abstracts. Applicants do not make any representation as to the accuracy of the additional information.

The Commissioner is hereby authorized to charge to Deposit Account No. 19-1345 an amount sufficient to cover the fee specified in 37 C.F.R. §1.17(p) for submission of this Information Disclosure Statement, should a fee be required.

Respectfully submitted,

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PTO/SB/08A				<b>Complete if Known</b> Application Number 10/568,516 Filing Date 02-15-2006 Confirmation Number 1180 First Named Inventor Daniel M. Giaquinta Group Art Unit Examiner Name Not Yet Assigned Attorney Docket No. HNDA 2023. 1 (2003-052)	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)					
Sheet	1	of	5		

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
	1	3,701,687		Grubb et al.	10-31-1972
	2	3,711,385		Beer et al.	01-16-1973
	3	4,061,495	A	Selman et al.	12-06-1977
	4	4,186,110		Jalan et al.	01-29-1980
	5	4,192,907		Jalan et al.	03-11-1980
	6	4,261,742	A	Coupland et al.	04-14-1981
	7	4,677,035	A	Fiedler et al.	06-30-1987
	8	4,683,119		Selman et al.	07-28-1987
	9	4,707,229		Dempsey et al.	11-17-1987
	10	4,716,087		Ito et al.	12-29-1987
	11	4,737,205		Selman et al.	04-12-1988
	12	4,781,803		Harris et al.	11-01-1988
	13	4,812,434		Pohlmann et al.	03-14-1989
	14	4,885,216	A	Naik	12-05-1989
	15	4,885,376		Verkade	12-05-1989
	16	4,954,474		Tsurumi et al.	09-04-1990
	17	4,970,128		Itoh et al.	11-13-1990
	18	4,985,386		Tsurumi et al.	01-15-1991
	19	5,024,905		Itoh et al.	06-18-1991
	20	5,068,161		Keck et al.	11-26-1991
	21	5,077,141	A	Subhash K. Naik et al.	12-31-1991
	22	5,079,107		Jalan	01-07-1992
	23	5,096,866		Itoh et al.	03-17-1992
	24	5,126,216		Capuano et al.	06-30-1992
	25	5,178,971		Itoh et al.	01-12-1993
	26	5,189,005		Watanabe et al.	02-23-1993

Examiner Signature	/Alexander Polyansky/	Date Considered	10/21/2008
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<b>PTO/SB/08A</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/568,516
				Filing Date	02-15-2006
				Confirmation Number	1180
				First Named Inventor	Daniel M. Giaquinta
				Group Art Unit	
Sheet	2	of	5	Examiner Name	Not Yet Assigned
				Attorney Docket No.	HNDA 2023. 1 (2003-052)

	27	5,225,391		Stonehart et al.	07-06-1993
	28	5,246,791		Fisher et al.	09-21-1993
	29	5,516,381	A	Hisataka Kawai et al.	05-14-1996
	30	5,593,934		Stonehart	01-14-1997
	31	5,635,439		Fukui et al.	06-03-1997
	32	5,773,162		Surampudi et al.	06-30-1998
	33	5,876,867		Itoh et al.	03-02-1999
	34	5,939,220		Gunner et al.	08-17-1999
	35	6,036,791	A	Mitsuhashi et al.	03-14-2000
	36	6,045,671		Wu et al.	04-04-2000
	37	6,048,633		Fuji et al.	04-11-2000
	38	6,127,058		Pratt et al.	10-03-2000
	39	6,171,721		Narayanan et al.	01-09-2001
	40	6,183,894		Adzic et al.	02-06-2001
	41	6,187,164	B1	Warren et al.	02-13-2001
	42	6,187,468	B1	Shinkai et al.	02-13-2001
	43	6,225,011	B1	Gotoh et al.	05-01-2001
	44	6,268,077	B1	Kelley et al.	07-31-2001
	45	6,294,280	B1	Tanaka et al.	09-25-2001
	46	6,322,643	B1	Mitsuhashi et al.	11-27-2001
	47	6,458,741	B1	Roark et al.	10-01-2002
	48	6,632,299	B1	Harris	10-14-2003
	49	6,730,350	B2	Finkelshstein et al.	05-04-2004
	50	2002/0004453	A1	Katori et al.	01-10-2002
	51	2002/0009626	A1	Terazono et al.	01-24-2002
	52	2002/014103	A1	Ruettinger et al.	10-10-2002
	53	2003/0008196	A1	Wessel et al.	01-09-2003
	54	2003/0045425	A1	Ruth et al.	03-06-2003
	55	2003/0059666	A1	Kourtakis	03-27-2003
	56	2004/0142230	A1	Haugen et al.	07-22-2004

**FOREIGN PATENT DOCUMENTS**

Examiner	Cite	Foreign Patent Document	Name of Patentee or Applicant	Date of Publication	
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	57	BE	895 174	A	Johnson Matthey PLC	05-30-1983	
	58	EP	0355853	A2	N.E. Chemcat Corp.	02-28-1990	
	59	EP	0386764	A2	N.E. Chemcat Corp.	09-12-1990	
	60	EP	0469514	A2	N.E. Chemcat Corp.	09-05-1992	
	61	EP	0552587	A1	Stonehart et al.	07-28-1993	
	62	EP	0827225	A2	N.E. Chemcat Corp.	03-04-1998	
	63	EP	0838872	A3	Gunner et al.	04-29-1998	
	64	EP	0855449	A1	Mitsubishi Materials Corp.	07-29-1998	
	65	EP	0858987	B1	Amariglio et al.	08-19-1998	
	66	EP	1080435	B1	Lacy et al.	03-07-2001	
	67	GB	1363888		United Aircraft Corp.	08-21-1974	A
	68	GB	2 029 857	A	Johnson Matthey Co Ltd.	03-26-1980	
	69	GB	2 033 925	A	Johnson Matthey Co Ltd.	05-29-1980	
	70	JP	2003-80085		Sony Corp.	03-18-2003	A✓
	71	JP	01 021030	A	Nippon Mining Co Ltd.	01-24-1989	A
	72	JP	2001 294959	A	Mitsubishi Heavy Ind Ltd.	10-26-2001	
	73	JP	2002-289208		Matsushita Electric Ind. Co.	10-04-2002	A
	74	JP	2003-331855		Tokyo Inst. of Technol	11-21-2003	A
	75	JP	08 100255	A	Mitsubishi Materials Corp.	04-16-1996	A
	76	JP	07 050008	A	Showa Denko KK	02-21-1995	A
	77	JP	06 007679	A	Tanaka Kikinzoku Kogyo KK	01-18-1994	A✓
	78	JP	06 065601	A	Mitsubishi Materials Corp.	03-08-1994	A
	79	JP	63 149356	A	Res Inst Electric Magnetic Alloys	06-22-1988	A
	80	JP	62 107040	A	Sumitomo Metal Ind Ltd.	05-18-1987	A
	81	JP	03 127459	A	Fuji Electric Co. Ltd.	05-30-1991	A
	82	JP	04 072029	A	Mitsubishi Materials Corp.	03-06-1992	A
	83	JP	04 066635	A	Mitsubishi Materials Corp.	03-03-1992	A
	84	JP	04 066632	A	Mitsubishi Materials Corp.	03-03-1992	A

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	85	WO	99/16137		Narayanan et al.	04-01-1999	
	86	WO	00/35037	A1	Johnson Matthey PLC	06-15-2000	
	87	WO	02/22901	A1	Cannon Muskegon Corp	03-21-2002	

### OTHER ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published					T <sup>6</sup>
	88	CHU, D. et al. - <i>J. Electrochem. Soc.</i> 1996, 143, 1685					
	89	COUPLAND et al. - <i>Platinum Metals Review</i> , Vol. 26, No. 4, 1982, pp. 146-157					
	90	DAE-HEE YE et al. - <i>Korean Journal of Materials Research</i> , Vol. 12, No. 12, 2002, pp. 897-903					
	91	EPRON, "Influence of Oxidizing and Reducing Treatments on the Metal-Metal Interactions and on the Activity for Nitrate Reduction of a Pt-Cu Bimetallic Catalyst" <i>Applied Catalysis</i> , 2002, pp. 253-261					
	92	RALPH, T.R. et al., "Catalysts for Low Temperature Fuel Cells Part 1: The Cathode Challenges", <i>Platinum Metals Rev.</i> , 2002, 46, (1), pp. 3-14					
	93	SCHMIDT et al., "Rotating Disk Electrode Measurements on the CO Tolerance of a High-Surface Area Pt/Vulcan Carbon Fuel Cell Electrocatalyst", <i>Journal of the Electrochemical Society</i> , 1999, 146(4), pp. 1296-1304					
	94	SCHMIDT et al., "Characterization of High-Surface-Area Electrocatalysts Using a Rotating Disk Electrode Configuration", <i>Journal of the Electrochemical Society</i> , 1998, 145(7), pp. 2354-2358					
	95	STRASSER, P. et al., "Combinatorial Electrochemical Strategies For the Discovery of New Fuel-Cell Electrode Materials, Proceedings of the International Symposium on Fuel Cells for Vehicles, 41st Battery Symposium", <i>The Electrochemical Society of Japan</i> , Nagoya 2000, pp. 34-35					
	96	STRASSER, P. et al., "Combinatorial Electrochemical Techniques for the Discovery of New Fuel-Cell Cathode Materials", <i>Direct Methanol Fuel Cells, Proceedings of the Electrochemical Society</i> , 2001, Vol. 2001-4, New Jersey, Zawodzinski, T., eds, pp. 191-208					
	97	YASUDA et al., "Polymerization-Pressure Dependencies of Properties of Perfluorosulfonate Cation-Exchanger Thin Films by Plasma Polymerization", <i>Ber. Bunsenges. Phys. Chem.</i> 98, No. 4, 1994, pp. 631-635.					
	98	International Search Report for Application No. PCT/US2004/026847 dated June 10, 2005, 7 pages					

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